REMARKS

Claims 1-13 and 23-28 are pending. The Examiner's reconsideration of the objections and rejections in view of the amendments and remarks is respectfully requested.

Referring to the reference cited on page 6, lines 13-15 of the specification; the reference has been included in an attached Information Disclosure Statement.

The Examiner has objected to the drawings. The Examiner stated essentially that ref. 116 and 118 do not appear in the drawings. References 116 and 118 have been amended in the Specification to 104 and 114, respectively.

The Drawings have been objected to as not including ref. 202, 204, 206 and 208. Figure 2 has been amended to include ref. 202, 204, 206 and 208 as described in the Specification at, for example, page 13, lines 3-8 and page 16, lines 11-20.

The Drawings have been objected to because reference characters 104 and 114 have both been used to designate clients. Applicant respectfully believes that the difference reference characters are needed to properly explain the invention, for example, at page 16, lines 3-6 and 11-12, 104 and 114 refer to different clients within a system.

The Examiner's reconsideration of the objections is respectfully requested.

The Specification has been objected to. Referring to ref. 614 in Figure 6 designates an element other than cell F as described at page 15, lines 3-5. Figure 6 has been amended such that ref. 614 points to cell F as described in the Specification.

Referring to page 19, line 21 and the notation of "Q"; respectfully, applicant believes that the notation is correct. "Q" may be properly referred to as "Q" or "C:E:Q", no other instance of "Q" appears in the figures, thus "Q" and "C:E:Q" are the same machine 708. However, machine

"N" includes virtual machines "C:G:N" and "C:B:N", thus, the full notation may be needed to refer to a particular virtual machine, e.g., "C:G:N".

The Specification at page 24, line 18 has been objected to, wherein the Examiner indicated that "(use...to)" should be "use...to". The Paragraph has been amended wherein "(use...to)" has been deleted and the following sentence has been added; "A routing function may be used to choose the virtual machine."

The Specification at page 31, line 3 has been objected to, wherein the Examiner suggest that the VM Numbers for C:B should be "0,6" rather than "6". Applicant appreciates the Examiner's suggestion. The paragraph has been amended to include "0, 6" as the virtual numbers of cellule C:B.

Reconsideration of the objections is respectfully requested.

Claims 1, 13 and 14 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Doeringer et al. (USPN 5,361,256) in view of Cheng (USPN 6,600,724). The Examiner stated essentially that the combined teachings of Doeringer and Cheng teach or suggest all the limitations of claims 1, 13 and 14.

Claims 1 and 14 have been amended to include certain portions of claim 4, rejected over Doeringer in view of Cheng as applied to claim 1 and further in view of Coile (see below).

Claims 1 and 14 claim, *inter alia*, "selecting a route to each selected cellule from a routing choice table of the first real machine including potential routing choices to reachable cellules relative to the first real machine."

Doeringer teaches a method for multicast routing, and sending a multicast packet to a subnetwork (see col. 10, line 20 to col. 11, line 3). Doeringer does not teach "selecting a route to each selected cellule from a routing choice table of the first real machine including potential

routing choices to reachable cellules relative to the first real machine" as claimed in claims 1 and 14. Doeringer routes multicast packets according to end systems having a common groupid within one or more subnetworks (see col. 7, lines 54-61 and col. 10, line 20 to col. 11, line 3). Doeringer's network is a unicast network (see col. 5, lines 55-64), wherein multicast routing tables (MURT) are maintained at gateways (see col. 10, lines 24-35). The source node of Doeringer does not have a routing table. Therefore, Doeringer fails to teach "a routing choice table of the first real machine", essentially as claimed in claims 1 and 14. Therefore, Doeringer fails to teach all the limitations of claims 1 and 14.

Cheng teaches a routing scheme for a shortest path tree architecture (see Abstract). Cheng does not teach or suggest "selecting a route to each selected cellule from a routing choice table of the first real machine including potential routing choices to reachable cellules relative to the first real machine" as claimed in claims 1 and 14. Cheng does not teach or suggest selecting a route to a cellule from a routing choice table, essentially as claimed in claims 1 and 14. Cheng's routing scheme does not implement routing tables (see col. 7, lines 10-18). Therefore, Cheng fails to teach or suggest "selecting a route to each selected cellule from a routing choice table of the first real machine including potential routing choices to reachable cellules relative to the first real machine" as claimed in claims 1 and 14. Thus, Cheng fails to cure the deficiencies of Doeringer.

Coile teaches a system and method for handling a plurality of connection requests made for a plurality of virtual machines implemented on a single physical machine (see col. 2, lines 36-43). Coile does not teach or suggest "selecting a route to each selected cellule from a routing choice table of the first real machine including potential routing choices to reachable cellules relative to the first real machine" as claimed in claims 1 and 14. Coile's virtual machines each have an individual IP address, which are mapped to an IP address of a physical machine by a

Local Director; the physical machine supporting multiple connections to clients on a single network communication line (see col. 6, lines 43-61 and col. 4, lines 60-67). Clients of Coile's virtual machines communicate using an IP address. Nowhere does Coile teach that an IP address is selected from a routing table. Therefore, Coile does not teach or suggest "selecting a route to each selected cellule from a routing choice table of the first real machine including potential routing choices to reachable cellules relative to the first real machine" as claimed in claims 1 and 14. Thus, Coile fails to cure the deficiencies of Doeringer and Cheng.

It is respectfully submitted that the combined teachings of Doeringer, Cheng and Coile fail to teach or suggest "selecting a route to each selected cellule from a routing choice table of the first real machine including potential routing choices to reachable cellules relative to the first real machine" as claimed in claims 1 and 14.

Claim 13 depends from claim 1. The dependent claim is believed to be allowable for at least the reasons given for claim 1. The Examiner's reconsideration of the rejection is respectfully requested.

Claims 2-12 and 15-22 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Doeringer in view of Cheng as applied to claim 1, and further in view of Coile et al. (USPN 6,061,349). The Examiner stated essentially that the combined teachings of Doeringer, Cheng and Coile teach or suggest all the limitations of claims 2-12 and 15-22.

Claims 2-12 depend from claim 1. Claims 15-22 have been cancelled. Claims 2-12 are believed to be allowable for at least the reasons given for claim 1. At least claim 4 is believed to be allowable for additional reasons.

Claim 4 claims, "routing the message through the selected spanning tree according to precomputed cellule distribution tables associated with the each virtual machine, wherein each

cellule distribution table includes a first distribution set of cellules to be used if the message is received from a neighbor in the same cell and a second distribution set of cellules to be used if the message is received from a neighbor in another cell."

Doeringer teaches a method for multicast routing, and sending a multicast packet to a subnetwork (see col. 10, line 20 to col. 11, line 3). Doeringer does not teach that "each cellule distribution table includes a first distribution set of cellules to be used if the message is received from a neighbor in the same cell and a second distribution set of cellules to be used if the message is received from a neighbor in another cell" as claimed in claim 4. Doeringer routes multicast packets according to end systems having a common groupid within one or more subnetworks (see col. 7, lines 54-61 and col. 10, line 20 to col. 11, line 3). Doeringer uses multicast routing tables (MURT) maintained at gateways (see col. 10, lines 24-35). Doeringer does not teach different MURTs for use depending on a source of a packet. Therefore, Doeringer does not teach "each cellule distribution table includes a first distribution set of cellules to be used if the message is received from a neighbor in the same cell and a second distribution set of cellules to be used if the message is received from a neighbor in another cell" as claimed in claim 4.

Cheng teaches a routing table structure for a shortest path tree architecture (see Abstract). Cheng does not teach or suggest that "each cellule distribution table includes a first distribution set of cellules to be used if the message is received from a neighbor in the same cell and a second distribution set of cellules to be used if the message is received from a neighbor in another cell" as claimed in claim 4. Cheng's routing scheme does not implement routing tables (see col. 7, lines 10-18). Further, Cheng's routing scheme does not determine a route based on whether a message is received from a neighbor in the same cell or a neighbor in another cell. Therefore,

Cheng fails to teach or suggest that "each cellule distribution table includes a first distribution set of cellules to be used if the message is received from a neighbor in the same cell and a second distribution set of cellules to be used if the message is received from a neighbor in another cell" as claimed in claim 4. Thus, Cheng fails to cure the deficiencies of Doeringer.

Coile teaches a system and method for handling a plurality of connection requests made for a plurality of virtual machines implemented on a single physical machine (see col. 2, lines 36-43). Coile does not teach or suggest that "each cellule distribution table includes a first distribution set of cellules to be used if the message is received from a neighbor in the same cell and a second distribution set of cellules to be used if the message is received from a neighbor in another cell" as claimed in claim 4. Coile's Local Director performs an address translation from an address of the virtual machine to the address of the physical machine (see col. 6, lines 43-47). The address translation of Coile does not depend on an address of a client. Therefore, Coile does not teach or suggest that "each cellule distribution table includes a first distribution set of cellules to be used if the message is received from a neighbor in the same cell and a second distribution set of cellules to be used if the message is received from a neighbor in another cell" as claimed in claim 4. Thus, Coile fails to cure the deficiencies of Doeringer and Cheng.

Therefore, the combined teachings of Doeringer, Cheng and Coile fail to teach or suggest that "each cellule distribution table includes a first distribution set of cellules to be used if the message is received from a neighbor in the same cell and a second distribution set of cellules to be used if the message is received from a neighbor in another cell" as claimed in claim 4. The Examiner's reconsideration of the rejection is respectfully requested.

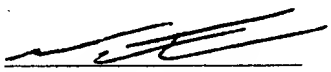
New claims 23-28 are believed to be allowable over the teachings of Doeringer, Cheng and Coile.

For example, claim 23 claims "determining, by the first subscribing client, whether the publishing client is an external neighbor outside a first cell of the first subscribing client or an internal neighbor inside the first cell of the first subscribing client."

Doeringer, Cheng and Coile teach methods for determining where to route a message or packet. However, the teachings of Doeringer, Cheng and Coile fail to teach a determination of a location of a publishing client. Therefore, claim 23 is believed to be allowable in view of Doeringer, Cheng and Coile. Claims 24-28 depend from claim 23 and are believed to be allowable for at least the reasons given for claim 23.

For the forgoing reasons, the application, including claims 1-13 and 23-28, is believed to be in condition for allowance. Early and favorable reconsideration of the case is respectfully requested.

Respectfully submitted,



Nathaniel T. Wallace
Reg. No. 48,909
Attorney for Applicants

F. CHAU & ASSOCIATES, LLC
130 Woodbury Road
Woodbury, New York 11797
TEL: (516) 692-8888
FAX: (516) 692-8889